

CLAIMS

What is claimed is:

1. An electronic food and beverage temperature monitor for detecting and monitoring a temperature of a food or beverage contained within a vessel, the temperature monitor comprising:
 - a housing;
 - a control device enclosed within the housing; and
 - a infrared temperature sensor in operable communication with the control device for detecting a temperature of the food or beverage contained in the vessel.
2. The temperature monitor of claim 1, wherein the infrared temperature sensor comprises a viewing end for receiving infrared light emitted from the food or beverage contained in the vessel.
3. The temperature monitor of claim 1 further comprising an audio device for emitting an audible tone, the audio device operably connected to the control device.
4. The temperature monitor of claim 3, wherein the control device is configured to cause the audio device to emit the audible tone when the detected temperature is at a predetermined temperature.
5. The temperature monitor of claim 1 further comprising a display device operably connected to the control device.
6. The temperature monitor of claim 5, wherein the display device comprises at least one light emitting diode.
7. The temperature monitor of claim 5, wherein the display device comprises a liquid crystal display.

8. The temperature monitor of claim 1 further comprising a support member positioned adjacent the infrared temperature sensor and having substantially planar portion extending radially outward from the infrared temperature sensor for supporting the temperature monitor upon a rim of the vessel.

9. The temperature monitor of claim 8, wherein the substantially planar portion of the support member has an upper surface positioned toward the housing and a lower surface positioned away from the housing, the lower surface being engageable with a rim of the vessel so as to position the infrared sensor such that the viewing end of the infrared sensor has an unobstructed view of the food or beverage contained in the vessel.

10. The temperature monitor of claim 8, wherein the support member has an arcuate shape forming a concave upper surface and a convex lower surface.

11. The temperature monitor of claim 10, wherein a principal axis of the support member substantially coincides with the longitudinal axis of the infrared temperature sensor.

12. The temperature monitor of claim 8, wherein the longitudinal axis of the infrared temperature sensor intersects a centroid of the support member.

13. The temperature monitor of claim 8, wherein the support member has a substantially flat disk shape.

14. The temperature monitor of claim 8, wherein the support member is aligned substantially perpendicular to the longitudinal axis of the infrared temperature sensor.

15. The temperature monitor of claim 8, wherein the support member is removably attached to the infrared temperature sensor.

16. An electronic food and beverage temperature monitor for detecting and monitoring a temperature of a food or beverage contained within a vessel, the temperature monitor comprising:

a housing;

a control device enclosed within the housing;

a temperature probe in communication with the control device for detecting a temperature of the food or beverage, the temperature probe operable for sending a signal to the control device indicative of the temperature of the food or beverage;

an audio device operably connected to the control device for emitting an audible tone in response to a signal received from the control device; and

a display device operably connected to the control device for displaying indicia in response to a signal received from the control device.

17. The temperature monitor of claim 16, wherein the control device is configured to cause the audio device to emit one of a plurality of audible tones when the detected temperature reaches one of a plurality of predetermined temperatures.

18. The temperature monitor of claim 17, wherein a discrete audible tone is associated with each predetermined temperature.

19. The temperature monitor of claim 16, wherein the control device is configured to cause the audio device to transmit a series of audible tones when the detected temperature falls within a predetermined range of temperatures.

20. The temperature device of claim 19, wherein the series of audible tones is emitted in a series of pulses that continue so long as the detected temperature falls within the predetermined range of temperatures.

21. The temperature device of claim 16, wherein the control device is configured to cause the audio device to emit an audible tone when the detected temperature is greater than a predetermined temperature.

22. The temperature device of claim 21, wherein the audible tone is emitted so long as the detected temperature is greater than the predetermined temperature.

23. The temperature monitor of claim 16, wherein the controller comprises means for storing a plurality of temperature ranges, each temperature range corresponding to a separate heating stage and each heating stage having a different identifier associated therewith, wherein the control device is configured to automatically compare the detected temperature with each of the predetermined temperature ranges for determining which heating stage the detected temperature falls within and to cause an identifier corresponding to the determined heating stage to be displayed on the display device.

24. The temperature monitor of claim 23, wherein the control device is configured to cause the audio device to emit a series of audible tones when the detected temperature falls within at least one of the plurality of temperature ranges.

25. The temperature monitor of claim 24, wherein the series of audible tones is emitted in a series pulses that continue so long as the detected temperature falls within the at least one of the plurality of temperature ranges.

26. The temperature monitor of claim 23, wherein a discrete audible tone is associated with each heating stage, the controller being configured to emit the audible tone associated with the heating stage corresponding with the detected temperature.

27. The temperature monitor of claim 16, wherein the display device comprises a liquid crystal display.

28. The temperature monitor of claim 16, wherein the display device comprises at least one light emitting diode.

29. The temperature monitor of claim 16, wherein the temperature probe comprises one of a thermistor, thermocouple, resistance temperature detector, and infrared temperature sensor.

30. The temperature monitor of claim 16 further comprising a support member attached to the temperature probe and having a substantially planar portion extending radially outward from the temperature probe, the planar portion having a lower surface positioned away from the housing and which is engageable with a rim of the vessel.

31. An electronic food and beverage temperature monitor for tracking a process of heating a food or beverage contained within a vessel, the temperature monitor comprising:

- a housing;

- a control device enclosed within the housing;

- a temperature probe in communication with the control device for detecting a temperature of the food or beverage, the temperature probe operable for sending a signal to the control device indicative of the temperature of the food or beverage;

- a display device operably connected to the control device; and

- means for storing a plurality of temperature ranges, each temperature range corresponding to a separate heating stage and each heating stage having a different identifier associated therewith, the storage means being in operable communication with the control device, wherein the control device is configured to automatically compare the detected temperature with each of the predetermined

temperature ranges for determining which heating stage the detected temperature falls within and to cause an identifier corresponding to the determined heating stage to be displayed on the display device.

32. The temperature monitor of claim 31 further comprising an audio device for emitting an audible tone, the audio device being operably connected to the control device.

33. The temperature monitor of claim 32, wherein the control device is configured to cause the audio device to emit the audible tone when the detected temperature is at a predetermined temperature.

34. The temperature monitor of claim 32, wherein the control device is configured to cause the audio device to transmit a series of audible tones when the detected temperature falls within a predetermined range of temperatures.

35. The temperature device of claim 34, wherein the series of audible tones is emitted as a series of pulses that continue so long as the detected temperature falls within the predetermined range of temperatures.

36. The temperature device of claim 32, wherein the control device is configured to cause the audio device to emit an audible tone when the detected temperature is greater than a predetermined temperature.

37. The temperature device of claim 36, wherein the audible tone is emitted so long as the detected temperature is greater than the predetermined temperature.

38. The temperature device of claim 31, wherein the display device comprises at least one light emitting diode.

39. The temperature device of claim 31, wherein the display device comprises a liquid crystal display.

40. The temperature monitor of claim 31, wherein the temperature probe comprises one of a thermistor, thermocouple, and resistance temperature detector.

41. The temperature monitor of claim 31, wherein the temperature probe comprises an infrared temperature sensor having a viewing end for receiving infrared light emitted from the food or beverage contained in the vessel.

42. The temperature monitor of claim 31 further comprising a support member attached to the temperature probe and having a substantially planar portion extending radially outward from the temperature probe.

43. The temperature monitoring device of claim 42, wherein the substantially planar portion of the support member has an upper surface positioned toward the housing and a lower surface positioned away from the housing, the lower surface being engageable with a rim of the vessel so as to cause a longitudinal axis of the temperature probe to be aligned substantially parallel with a longitudinal axis of the vessel when the support member is placed in a resting position upon the rim of the vessel.

44. The temperature monitor of claim 42, wherein the support member is slidably mountable to the temperature probe so as to enable the support member to be positioned at a plurality of locations along a length of the temperature probe.

45. The temperature monitor of claim 42, wherein the support member has an arcuate shape forming a concave upper surface and a convex lower surface.

46. The temperature monitor of claim 45, wherein a principal axis of the support member substantially coincides with the longitudinal axis of the temperature probe.

47. The temperature monitor of claim 45, wherein the longitudinal axis of the temperature probe intersects a centroid of the support member.

48. The temperature monitor of claim 42, wherein the support member has a substantially flat disk shape.

49. The temperature monitor of claim 48, wherein the support member is aligned substantially perpendicular to the longitudinal axis of the temperature probe.

50. The temperature monitor of claim 42, wherein the support member is removably attached to the temperature probe.